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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Frank Filser et al. Docket No.: 00-497
Serial No.: 09/623,268 Examiner :
Filed : August 30, 2000 Art Unit :
For : DENTAL CROWNS AND/OR DENTAL BRIDGES

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INFORMATION DISCLOSURE STATEMENT

Hon. Commissioner of Patents & Trademarks
United States Patent & Trademark Office
Washington, D.C. 20231

Dear Sir:

In accordance with the requirements of 37 CFR 1.97 and 1.98, Applicants hereby submit the prior art listed hereinbelow, which was cited in the instant specification, copies enclosed.

- (1) An article entitled ALL-CERAMIC DENTAL BRIDGES BY THE DIRECT CERAMIC MACHINING PROCESS (DCM), By Frank Filser et al., Vol. 10, pp. 433-436, published 1997, Elsevier Science Ltd. This article discloses a new process using direct machining of ceramics (DCM) which allows the manufacturing of all-ceramic dental bridges. Presintered preforms of ceramics, e.g. Tetragonal Zirconia Polycrystals (TZP) are machined in short time and then sintered to final shape. The preforms show homogenous shrinkage during final sintering. No

further machining is needed after sintering to full density to achieve high strength and high accuracy. The process steps, strength of veneered ceramics, accuracy, and the development of an all-ceramic dental bridge by the DCM process.

- (2) European Patent No. 0 580 565, entitled METHOD OF MANUFACTURING CERAMIC ARTIFICIAL TOOTH RESTORATIONS, By Oden Agneta, published January 26, 1994. This patent discloses a method of manufacturing artificial tooth restorations for natural teeth or implants comprising a ceramic densely sintered, high strength individual core (B) with dental porcelain (A) by powder metallurgical manufacturing methods. The inner surface (I) of the core (B), which will fit against one or more prepared tooth surfaces (P) or artificial abutments, are manufactured by forming a ceramic powder mixture against a surface of a body at which this mentioned surface is manufactured by registering the surfaces of the prepared teeth or artificial abutments and their mutual relationship with a three dimensional optical or mechanical reading method directly in the mouth or on a model in e.g. plaster after which the registered surfaces are reproduced in an enlarged size e.g. with a

computer controlled milling machine at which the enlargement is calculated from the shrinkage of the ceramic material during sintering to full density and considering the gap for cement.

The undersigned submits the above-identified references for independent consideration by the Examiner and does not make any admission that these references are or are not material to the present invention or that these references are or are not prior art with respect to the present invention.

Respectfully submitted,

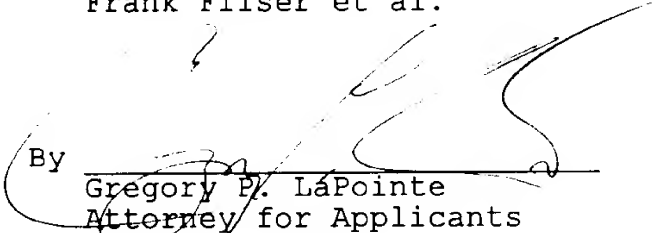
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November 7, 2000

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